INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.state.in.us/idem

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) Renewal OFFICE OF AIR QUALITY AND THE EVANSVILLE ENVIRONMENTAL PROTECTION AGENCY

J. H. Rudolph & Company, Inc.
3300 S. Green River Road
Evansville, Indiana 47715

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F163-14132-03408	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: April 10, 2002 Expiration Date: April 10, 2007

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and the Evansville Environmental Protection Agecny. The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a hot drum-mix asphalt plant.

Authorized individual:	Alvin Evans, Chief Operating Officer
Source Address:	3300 S. Green River Road, Evansville, IN 47715
Mailing Address:	P.O. Box 5226, Evansville, IN 47715
SIC Code:	2951
Source Location Status:	Vanderburgh
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) An alternate drying process, used to dry magnetite, with a maximum capacity of 50,000 tons per year;

(b) One (1) six hundred fifty (650) tons per hour aggregate dryer, with a burner capacity of 116 million British thermal units per hour, exhausting through a baghouse at stack SV1. This dryer is fired by natural gas, including butane, #2 diesel and #4 waste oil as backup fuel;

(c) One (1) hot oil heater, fired by natural gas and rated at 2.10 million British thermal units per hour, and exhausting to stack SV2;

(d) One (1) baghouse with a total filter area of 13,149 ft2;

(e) One (1) 20,000 gallon liquid storage tank (ID # 12A) for PG 64-34;

(f) One (1) 30,000 gallon liquid asphalt storage tank (ID # 12B) for AC-10;

(g) One (1) 30,000 gallon liquid asphalt storage tank (ID # 12C) for AC-20; and

(h) Two (2) 18,000 gallon tanks (ID # 16) for #2 diesel storage.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with a heat input equal to or less than 10 million British thermal units per hour;

(b) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than 6 million British thermal units per hour;

(c) Replacement of repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment;

(d) A laboratory as defined in 326 IAC 2-7-1(20)(C); and

(e) Paved and unpaved roadways.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

(a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, and the Evansville Environmental Protection Agency shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

(a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the Evansville Environmental Protection Agency, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

(b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by the Evansville Environmental Protection Agency.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, and the Evansville Environmental Protection Agency within a reasonable time, any information that IDEM, OAQ, and the Evansville Environmental Protection Agency may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, and the Evansville Environmental Protection Agency copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ and the Evansville Environmental Protection Agency may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; and

(3) Denial of a permit renewal application.

(b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and the Evansville Environmental Protection Agency on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, and the Evansville Environmental Protection Agency may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, and the Evansville Environmental Protection Agency upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and the Evansville Environmental Protection Agency. IDEM, OAQ, and the Evansville Environmental Protection Agency may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or the Evansville Environmental Protection Agency makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or the Evansville Environmental Protection Agency within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ and the Evansville Environmental Protection Agency/Southwest Regional Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Telephone No.: 812-435-6145
Facsimile No.: 812-435-6155

Telephone No.: 812-436-2584
Facsimile No.: 812-436-2572

Failure to notify IDEM, OAQ and the Evansville Environmental Protection Agency/Southwest Regional Office, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ and the Evansville Environmental Protection Agency, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ and the Evansville Environmental Protection Agency, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ or the Evansville Environmental Protection Agency determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ or the Evansville Environmental Protection Agency, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ or the Evansville Environmental Protection Agency, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ or the Evansville Environmental Protection Agency, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and the Evansville Environmental Protection Agency and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and the Evansville Environmental Protection Agency on or before the date it is due.

(2) If IDEM, OAQ and the Evansville Environmental Protection Agency upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ and the Evansville Environmental Protection Agency takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ and the Evansville Environmental Protection Agency, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ and the Evansville Environmental Protection Agency, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, the Evansville Environmental Protection Agency, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

B.24 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

(a) The requirements to obtain a permit revision under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Section A.2.

(b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction work is suspended for a continuous period of one (1) year or more.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and the Evansville Environmental Protection Agency not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, and the Evansville Environmental Protection Agency, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.12 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no often less than once an hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

within ninety (90) days from the date of issuance of this permit.

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) If the ERP is disapproved by IDEM, OAQ and the Evansville Environmental Protection Agency, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAQ and the Evansville Environmental Protection Agency, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68; or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.17 Compliance Response Plan - Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ and the Evansville Environmental Protection Agency upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.19 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

(a) The Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8). The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and the Evansville Environmental Protection Agency on or before the date it is due.

C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or the Evansville Environmental Protection Agency makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or the Evansville Environmental Protection Agency within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Evansville Environmental Protection Agency
101 Court Street, Room 205
Evansville, Indiana 47708

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and the Evansville Environmental Protection Agency on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 ALTERNATIVE OPERATING SCENARIO TO SECTION D.2

Facility Description [326 IAC 2-8-4(10)]:
(a) An alternate drying process, used to dry magnetite, with a maximum capacity of 50,000 tons per year;
(b) One (1) six hundred fifty (650) tons per hour aggregate dryer, with a burner capacity of 116 million British thermal units per hour, exhausting through a baghouse at stack SV1. This dryer is fired by natural gas, including butane, #2 diesel and #4 waste oil as backup fuel;
(c) One (1) hot oil heater, fired by natural gas and rated at 2.10 million British thermal units per hour, and exhausting to stack SV2; and
(d) One (1) baghouse with a total filter area of 13,149 ft2.
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter Less Than 10 Microns (PM-10) [326 IAC 2-8-4] [326 IAC 2-2] [40 CFR 52.21]

Pursuant to 326 IAC 2-8-4, PM-10 emissions from the magnetite drying operation shall be limited to 2.3 pounds per ton, including both filterable and condensible fractions. Compliance with this limit shall limit the source's potential to emit of PM-10 to less than 100 tons per twelve (12) consecutive month period. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.1.2 Sulfur Dioxide (SO2) [326 IAC 7-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 135 million British thermal units per hour burner for the aggregate drum mix dryer shall be limited to 0.5 pound per MMBtu heat input when using distillate oils. This is equivalent to the following maximum allowable sulfur contents of the following fuels: No. 2 diesel fuel oil (0.5%) and #4 waste oil (1.5%).

Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown, and malfunction. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

D.1.3 No. 2 Fuel Usage and Equivalents [326 IAC 2-8]

(a) When operating under this alternative operating scenario D.1.3 or operating scenario D.2.6, the source shall limit input to the dryer burner of No. 2 diesel fuel oil (not to exceed 0.5% sulfur content) plus No. 2 diesel fuel equivalents, to 2,574,512 gallons per 12 consecutive month period. For the purposes of calculating equivalent No. 2 diesel fuel oil consumption from back-up fuels, based on SO2 emissions, the following conversion factors shall be utilized:

(1) 1 MMCF of natural gas burned = 7.678E-3 kgal of No. 2 diesel fuel oil.

(2) 1 kgal of liquified petroleum gas (butane) burned = 0.00 kgal of no. 2 diesel fuel oil.

(b) Sulfur content of No. 4 waste oil shall not exceed 0.5% by weight.

These usage limits are required to limit the source's potential to emit sulfur dioxide (SO2) to less than 100 tons per twelve (12) consecutive month period, based on the fuel sulfur contents of Condition D.1.5. Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.4 Natural Gas Usage and Equivalents [326 IAC 2-8]

(a) When operating under this alternative operating scenario D.1.4 or operating scenario D.2.7, the usage of natural gas plus equivalent natural gas fuel usage from back-up fuels, shall be limited to 1030 million cubic feet (MMCF) per twelve (12) consecutive month period. For the purposes of calculating equivalent natural gas consumption from back-up fuels, the following conversion factors, based on NOx emissions, shall be utilized:

(1) 1 kgal of # 2 diesel fuel oil = 0.4047 MMCF of natural gas.

(2) 1 kgal of liquified petroleum gas (butane) burned = 0.1105 MMCF of natural gas.

These usage limits are required to limit the source's potential to emit nitrogen oxide (NOx) to less than 100 tons per twelve (12) consecutive month period, Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.6 Particulate Matter (PM)

The baghouse for PM and PM10 control shall be in operation at all times when the aggregate dryer and burner are in operation.

D.1.7 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.1.2 shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed 0.5 pounds per million Btu heat input when firing No. 2 diesel fuel oil, and 1.6 pounds per million Btu heat input when firing #4 waste oil:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 135 MMBtu per hour heater, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.1.8 Used Oil Requirements [329 IAC 13]

The waste oil burned in the aggregate dryer burner shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

(a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),

(b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and

(c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).

The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.9 Visible Emissions Notations

(a) Visible emission notations of the conveyors, aggregate storage piles, unpaved roads, and the mixing and drying operation stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.1.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in controlling the mixing and drying operations, at least per shift when the mixing and drying process is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 4.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.11 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the drum-mix aggregate mixing/drying operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.1.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.13 Record Keeping Requirements

(a) To document compliance with Conditions D.1.2, D.1.3, D.1.4 and D.1.8, the Permittee shall maintain records in accordance with (1) through (8) below. Records maintained for (1) through (8) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO2 and NOx emission limits established in Conditions D.1.2, D.1.3, D.1.4.

(1) Calendar dates covered in the compliance determination period;

(2) Monthly fuel usages;

(3) Average heating value of the fuels;

(4) Average sulfur dioxide (SO2) emission rate for each fuel oil type combusted per month (pounds SO2 per million Btu)

(5) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(6) Fuel supplier certifications;

(7) The name of the fuel supplier; and

(8) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document compliance with condition D.1.9, the Permittee shall maintain records of visible emission notations of the mixing and drying operation stack exhaust, and conveyors, storage piles, and unpaved roads, once per shift.

(c) To document compliance with Condition D.1.10, the Permittee shall maintain the following:

Weekly records of the following operational parameters during normal operation when venting to the atmosphere:

(1) Inlet and outlet differential static pressure; and

(2) Cleaning cycle: frequency and differential pressure.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.14 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.3 and D.1.4 shall be submitted to the address(es) listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1-1(1).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:
(b) One (1) six hundred fifty (650) tons per hour aggregate dryer, with a burner capacity of 116 million British thermal units per hour, exhausting through a baghouse at stack SV1. This dryer is fired by natural gas, including butane, #2 diesel and #4 waste oil as backup fuel;
(c) One (1) hot oil heater, fired by natural gas and rated at 2.10 million British thermal units per hour, and exhausting to stack SV2; and
(d) One (1) baghouse with a total filter area of 13,149 ft2.
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 60, Subpart I.

D.2.2 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.90, Subpart I] [326 IAC 2-2] [40 CFR 52.21]

Pursuant to 326 IAC 12, (40 CFR Part 60.90, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the particulate matter emissions from the mixing and drying operations shall not exceed 0.04 grains per dry standard cubic foot (gr/dscf). This is equivalent to a particulate matter emission rate of 8.53 pounds per hour. Compliance with this limit shall limit the source's potential to emit of PM to less than 100 tons per twelve (12) consecutive month period and make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21 not applicable.

D.2.3 Opacity [326 IAC 12] [40 CFR 60.90, Subpart I]

Pursuant to 326 IAC 12, (40 CFR Part 60.92, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the mixing and drying operations shall not discharge or cause the discharge into the atmosphere any gases which exhibit 20 percent opacity or greater.

D.2.4 Particulate Matter Less Than 10 Microns (PM-10) [326 IAC 2-8-4] [326 IAC 2-2] [40 CFR 52.21]

Pursuant to 326 IAC 2-8-4, PM-10 emissions from the aggregate mixing and drying operation shall be limited to 0.05 pounds of PM-10 emitted per ton of asphalt produced, equivalent to 16.43 pounds per hour, including both filterable and condensible fractions. Compliance with this limit shall limit the source's potential to emit of PM-10 to less than 100 tons per twelve (12) consecutive month period. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.2.5 Sulfur Dioxide (SO2) [326 IAC 7-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 135 million British thermal units per hour burner for the aggregate drum mix dryer shall be limited to 0.5 pound per MMBtu heat input when using distillate oils. This is equivalent to the following maximum allowable sulfur contents of the following fuels: No. 2 diesel fuel oil (0.5%) and #4 waste oil (1.5%).

Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown, and malfunction. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

D.2.6 No. 2 Fuel Usage and Equivalents [326 IAC 2-8]

(a) When operating under this operating scenario D.2.6 or alternative operating scenario D.1.3, the source shall limit input to the dryer burner of No. 2 diesel fuel oil (not to exceed 0.5% sulfur content) plus No. 2 diesel fuel equivalents, to 2,574,512 gallons per 12 consecutive month period. For the purposes of calculating equivalent No. 2 diesel fuel oil consumption from back-up fuels, based on SO2 emissions, the following conversion factors shall be utilized:

(1) 1 MMCF of natural gas burned = 7.678E-3 kgal of No. 2 diesel fuel oil.

(2) 1 kgal of liquified petroleum gas (butane) burned = 0.00 kgal of no. 2 diesel fuel oil.

(b) Sulfur content of No. 4 waste oil shall not exceed 0.5% by weight.

These usage limits are required to limit the source's potential to emit sulfur dioxide (SO2) to less than 100 tons per twelve (12) consecutive month period, based on the fuel sulfur contents of Condition D.1.5. Therefore, the requirements of 326 IAC 2-7 will not apply.

D.2.7 Natural Gas Usage and Equivalents [326 IAC 2-8]

(a) When operating under this operating scenario D.2.7 or alternative operating scenario D.1.4, the usage of natural gas plus equivalent natural gas fuel usage from back-up fuels, shall be limited to 1030 million cubic feet (MMCF) per twelve (12) consecutive month period. For the purposes of calculating equivalent natural gas consumption from back-up fuels, the following conversion factors, based on NOx emissions, shall be utilized:

(1) 1 kgal of # 2 diesel fuel oil = 0.4047 MMCF of natural gas.

(2) 1 kgal of liquified petroleum gas (butane) burned = 0.1105 MMCF of natural gas.

These usage limits are required to limit the source's potential to emit nitrogen oxide (NOx) to less than 100 tons per twelve (12) consecutive month period, Therefore, the requirements of 326 IAC 2-7 will not apply.

D.2.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.2.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

(a) During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions D.2.2, D.2.3, and D.2.4, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5 for PM and methods as approved by the Commissioner for PM-10. PM-10 includes filterable and condensible PM-10.

(b) Opacity testing utilizing 40 CFR Part 60 Appendix A, Method 9, to demonstrate compliance with the opacity limitation of Condition D.2.4.

This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing.

D.2.10 Particulate Matter (PM)

The baghouse for PM and PM10 control shall be in operation at all times when the aggregate dryer and burner are in operation.

D.2.11 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.1.5 shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed 0.5 pounds per million Btu heat input when firing No. 2 diesel fuel oil, and 1.6 pounds per million Btu heat input when firing #4 waste oil:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 135 MMBtu per hour heater, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.2.12 Used Oil Requirements [329 IAC 13]

The waste oil burned in the aggregate dryer burner shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

(a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),

(b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and

(c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).

The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.2.13 Visible Emissions Notations

(a) Visible emission notations of the conveyors, aggregate storage piles, unpaved roads, and the mixing and drying operation stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.2.14 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in controlling the mixing and drying operations, at least per shift when the mixing and drying process is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 4.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.15 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the drum-mix aggregate mixing/drying operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.2.16 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.17 Record Keeping Requirements

(a) To document compliance with Conditions D.2.5, D.2.6, D.2.7 and D.2.12, the Permittee shall maintain records in accordance with (1) through (8) below. Records maintained for (1) through (8) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO2 and NOx emission limits established in Conditions D.2.5, D.2.6, D.2.7.

(1) Calendar dates covered in the compliance determination period;

(2) Monthly fuel usages;

(3) Average heating value of the fuels;

(4) Average sulfur dioxide (SO2) emission rate for each fuel oil type combusted per month (pounds SO2 per million Btu)

(5) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(6) Fuel supplier certifications;

(7) The name of the fuel supplier; and

(8) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document compliance with condition D.2.13, the Permittee shall maintain records of visible emission notations of the mixing and drying operation stack exhaust, and conveyors, storage piles, and unpaved roads, once per shift.

(c) To document compliance with Condition D.2.14, the Permittee shall maintain the following:

Weekly records of the following operational parameters during normal operation when venting to the atmosphere:

(1) Inlet and outlet differential static pressure; and

(2) Cleaning cycle: frequency and differential pressure.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.18 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.6 and D.2.7 shall be submitted to the address(es) listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1-1(1).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:
(e) One (1) 20,000 gallon liquid storage tank (ID # 12A) for PG 64-34;
(f) One (1) 30,000 gallon liquid asphalt storage tank (ID # 12B) for AC-10;
(g) One (1) 30,000 gallon liquid asphalt storage tank (ID # 12C) for AC-20; and
(h) Two (2) 18,000 gallon tanks (ID # 16) for #2 diesel storage.
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Record Keeping Requirements [326 IAC 12] [40 CFR 60.110b, Subpart Kb]

Pursuant to the New Source Performance Standard (NSPS), 326 IAC12 and 40 CFR Part 60.116 Subpart Kb, the Permittee shall maintain permanent accessible records at the source for the life of each volatile liquid storage tank as follows:

(a) the dimension of each storage vessel (tanks # 12A, # 12B, # 12C and # 16);

(b) an analysis showing the capacity of each storage vessel (tanks # 12A, # 12B, # 12C and # 16); and

(c) the true vapor pressure of the VOC stored, indicating that the maximum true vapor pressure of each VOC stored is less than 15.0 kPa (tanks # 12A, # 12B and # 12C only).

D.3.2 Cutback or Emulsified Asphalt [326 IAC 8-5-2] [326 IAC 2-8]

Any change or modification which causes the source to start producing any cutback or emulsified asphalt shall obtain prior approval from IDEM, OAQ and shall be subject to the requirements of 326 IAC 8-5-2 and 326 IAC 2-8.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
AND THE EVANSVILLE ENVIRONMENTAL PROTECTION AGENCY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: J. H. Rudolph & Company, Inc.
Source Address: P.O. Box 5226, Evansville, IN 47715
Mailing Address: 3300 S. Green River Road, Evansville, IN 47715
FESOP No.: F163-14132-03408

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

AND THE EVANSVILLE ENVIRONMENTAL PROTECTION AGENCY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: J. H. Rudolph & Company, Inc.
Source Address: 3300 S. Green River Road, Evansville, IN 47715
Mailing Address: P.O. Box 5226, Evansville, IN 47715
FESOP No.: F163-14132-03408

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
AND THE EVANSVILLE ENVIRONMENTAL PROTECTION AGENCY

FESOP Quarterly Report

Source Name: J. H. Rudolph & Company, Inc.
Source Address: 3300 S. Green River Road, Evansville, IN 47715
Mailing Address: P.O. Box 5226, Evansville, IN 47715
FESOP No.: F163-14132-03408
Facility: 116 MMBtu per hour burner for the drum mix dryer
Parameter: SO2 fuel oil consumption limitations
Limit: The source shall limit input to the dryer burner of No. 2 distillate fuel oil (not to exceed 0.5% sulfur content) plus No. 2 distillate fuel equivalents, to 2,574,512 gallons per 12 consecutive month period. For the purposes of calculating equivalent No. 2 distillate fuel oil consumption from back-up fuels, based on SO_2 emissions, the following conversion factors shall be utilized:

(a) 1 MMCF of natural gas burned = 7.678E-3 kgal of No. 2 fuel oil.
(b) 1 kgal of liquified petroleum gas burned = 0.00 kgal of no. 2 fuel oil.
(c) 1 kgal of waste oil (no. 4) (not to exceed 0.5% sulfur) = 0.9558 kgal of no. 2 fuel oil.

YEAR: _____

Month	No.2 (+ equivalents) usage this month (gallons per month)	No.2 (+ equivalents) usage for previous 11 months (gallons)	No.2 (+ equivalents) usage for last 12 months (gallons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.
9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
AND THE CITY OF EVANSVILLE ENVIRONMENTAL PROTECTION AGENCY

FESOP Quarterly Report

Source Name: J. H. Rudolph & Company, Inc.
Source Address: 3300 S. Green River Road, Evansville, IN 47715
Mailing Address: P.O. Box 5226, Evansville, IN 47715
FESOP No.: F163-14132-03408
Facility: 116 MMBtu per hour burner for the drum mix dryer
Parameter: NOx fuel oil consumption limitations
Limit: The usage of natural gas plus equivalent natural gas fuel usage from back-up fuels, shall be limited to 1030 million cubic feet (MMCF) per twelve (12) consecutive month period. For the purposes of calculating equivalent natural gas consumption from back-up fuels, the following conversion factors, based on NOx emissions, shall be utilized:

(a) 1 kgal of # 2 fuel oil = 0.4047 MMCF of natural gas.
(b) 1 kgal of liquified petroleum gas burned = 0.1105 MMCF of natural gas.
(c) 1 kgal waste oil (no. 4) (not to exceed 0.5% sulfur) = 0.1000 MMCF of natural gas.

YEAR: _____

Month	Natural Gas (+ equivalents) usage this month (MMCF per month)	Natural Gas (+ equivalents) usage for previous 11 months (MMCF)	Natural Gas (+ equivalents) usage for last 12 months (MMCF)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.
9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
AND THE EVANSVILLE ENVIRONMENTAL PROTECTION AGENCY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: J. H. Rudolph & Company, Inc.
Source Address: 3300 S. Green River Road, Evansville, IN 47715
Mailing Address: P.O. Box 5226, Evansville, IN 47715
FESOP No.: F163-14132-03408

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".
9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.
9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: ________________________________

Title/Position: ________________________________

Date: ________________________________

Phone: ________________________________

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for Federally Enforceable State Operating Permit (FESOP) Renewal

Source Name:	J. H. Rudolph & Company, Inc.
Source Location:	3300 S. Green River Road, Evansville, IN 47715
County:	Vanderburgh
Operation Permit No.:	F163-14132-03408
SIC Code:	2951
Permit Reviewer:	NH/EVP

On February 15, 2002, the Office of Air Quality (OAQ) had a notice published in the Evansville Courier, Evansville, Indiana, stating that J.H. Rudolph & Company, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to operate a hot drum-mix asphalt plant. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAQ has decided to make the following revisions to the permit:

1) The following new Condition D.2.9 will be added to the permit to list the testing requirements. The rest of Section D.2 will be re-numbered accordingly.

D.2.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

(a) During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions D.2.2, D.2.3, and D.2.4, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5 for PM and methods as approved by the Commissioner for PM-10. PM-10 includes filterable and condensible PM-10.

(b) Opacity testing utilizing 40 CFR Part 60 Appendix A, Method 9, to demonstrate compliance with the opacity limitation of Condition D.2.4.

This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

2) The following changes have been made to Condition D.1.2 to indicate the correct back-up fuels.

D.1.2 Sulfur Dioxide (SO2) [326 IAC 7-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 135 million British thermal units per hour burner for the aggregate drum mix dryer shall be limited to 0.5 pound per MMBtu heat input when using distillate oils. This is equivalent to the following maximum allowable sulfur contents of the following fuels: No. 2 ~~distillate~~ **diesel** fuel oil (0.5%) and **#4** ~~re-refined~~ waste oil (1.5%).

Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown, and malfunction. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

3) The following changes have been made to Condition D.1.7 to indicate the correct back-up fuels.

D.1.7 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.1.2 shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed 0.5 pounds per million Btu heat input when firing ~~No. 1 and~~ No. 2 ~~distillate~~ **diesel** fuel oil, and 1.6 pounds per million Btu heat input when firing ~~No. 4, No. 5, No. 6 and re-refined~~ **#4** waste oil:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 135 MMBtu per hour heater, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

4) The following changes have been made to Condition D.2.5 to indicate the correct back-up fuels.

D.2.5 Sulfur Dioxide (SO2) [326 IAC 7-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 135 million British thermal units per hour burner for the aggregate drum mix dryer shall be limited to 0.5 pound per MMBtu heat input when using distillate oils. This is equivalent to the following maximum allowable sulfur contents of the following fuels: No. 2 ~~distillate~~ **diesel** fuel oil (0.5%) and **#4** ~~re-refined~~ waste oil (1.5%).

Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown, and malfunction. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

5) The following changes have been made to Condition D.2.10 (now re-numbered D.2.11) to indicate the correct back-up fuels.

D.2.1~~0~~**1** Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.1.5 shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed 0.5 pounds per million Btu heat input when firing ~~No. 1 and~~ No. 2 ~~distillate~~ **diesel** fuel oil, and 1.6 pounds per million Btu heat input when firing ~~No. 4, No. 5, No. 6 and re-refined~~ **#4** waste oil:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 135 MMBtu per hour heater, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

6) The following changes have been made to Condition D.1.3 to indicate the correct back-up fuels.

D.1.3 No. 2 Fuel Usage and Equivalents [326 IAC 2-8]

(a) When operating under this alternative operating scenario D.1.3 or operating scenario D.2.6, the source shall limit input to the dryer burner of No. 2 ~~distillate~~ **diesel** fuel oil (not to exceed 0.5% sulfur content) plus No. 2 ~~distillate~~ **diesel** fuel equivalents, to 2,574,512 gallons per 12 consecutive month period. For the purposes of calculating equivalent No. 2 ~~distillate~~ **diesel** fuel oil consumption from back-up fuels, based on SO2 emissions, the following conversion factors shall be utilized:

(1) 1 MMCF of natural gas burned = 7.678E-3 kgal of No. 2 **diesel** fuel oil.

(2) 1 kgal of liquified petroleum gas **(butane)** burned = 0.00 kgal of no. 2 **diesel** fuel oil.

(b) Sulfur content of No. 4 waste oil shall not exceed 0.5% by weight.

These usage limits are required to limit the source's potential to emit ~~nitrogen oxide (NOx) and~~ sulfur dioxide (SO2) ~~each~~ to less than 100 tons per twelve (12) consecutive month period, based on the fuel sulfur contents of Condition D.1.5. Therefore, the requirements of 326 IAC 2-7 will not apply.

7) The following changes have been made to Condition D.2.6 to indicate the correct back-up fuels.

D.2.6 No. 2 Fuel Usage and Equivalents [326 IAC 2-8]

(a) When operating under this operating scenario D.2.6 or alternative operating scenario D.1.3, the source shall limit input to the dryer burner of No. 2 ~~distillate~~ **diesel** fuel oil (not to exceed 0.5% sulfur content) plus No. 2 ~~distillate~~ **diesel** fuel equivalents, to 2,574,512 gallons per 12 consecutive month period. For the purposes of calculating equivalent No. 2 ~~distillate~~ **diesel** fuel oil consumption from back-up fuels, based on SO2 emissions, the following conversion factors shall be utilized:

(1) 1 MMCF of natural gas burned = 7.678E-3 kgal of No. 2 **diesel** fuel oil.

(2) 1 kgal of liquified petroleum gas **(butane)** burned = 0.00 kgal of no. 2 **diesel** fuel oil.

(b) Sulfur content of No. 4 waste oil shall not exceed 0.5% by weight.

These usage limits are required to limit the source's potential to emit ~~nitrogen oxide (NOx) and~~ sulfur dioxide (SO2) ~~each~~ to less than 100 tons per twelve (12) consecutive month period, based on the fuel sulfur contents of Condition D.1.5. Therefore, the requirements of 326 IAC 2-7 will not apply.

8) The following changes have been made to Condition D.1.4 to indicate the correct back-up fuels.

D.1.4 Natural Gas Usage and Equivalents [326 IAC 2-8]

(a) When operating under this alternative operating scenario D.1.4 or operating scenario D.2.7, the usage of natural gas plus equivalent natural gas fuel usage from back-up fuels, shall be limited to 1030 million cubic feet (MMCF) per twelve (12) consecutive month period. For the purposes of calculating equivalent natural gas consumption from back-up fuels, the following conversion factors, based on NOx emissions, shall be utilized:

(1) 1 kgal of # 2 **diesel** fuel oil = 0.4047 MMCF of natural gas.

(2) 1 kgal of liquified petroleum gas **(butane)** burned = 0.1105 MMCF of natural gas.

~~(b) Sulfur content of No. 4 waste oil shall not exceed 0.5% by weight.~~

These usage limits are required to limit the source's potential to emit nitrogen oxide (NOx) to less than 100 tons per twelve (12) consecutive month period, Therefore, the requirements of 326 IAC 2-7 will not apply.

9) The following changes have been made to Condition D.2.7 to indicate the correct back-up fuels.

D.2.7 Natural Gas Usage and Equivalents [326 IAC 2-8]

(a) When operating under this operating scenario D.2.7 or alternative operating scenario D.1.4, the usage of natural gas plus equivalent natural gas fuel usage from back-up fuels, shall be limited to 1030 million cubic feet (MMCF) per twelve (12) consecutive month period. For the purposes of calculating equivalent natural gas consumption from back-up fuels, the following conversion factors, based on NOx emissions, shall be utilized:

(1) 1 kgal of # 2 **diesel** fuel oil = 0.4047 MMCF of natural gas.

(2) 1 kgal of liquified petroleum gas **(butane)** burned = 0.1105 MMCF of natural gas.

~~(b) Sulfur content of No. 4 waste oil shall not exceed 0.5% by weight.~~

These usage limits are required to limit the source's potential to emit nitrogen oxide (NOx) to less than 100 tons per twelve (12) consecutive month period, Therefore, the requirements of 326 IAC 2-7 will not apply.

10) Due to the addition of a new Condition D.2.9, the following changes are being made to Condition D.2.16 (now re-numbered D.2.17).

D.2.17~~6~~Record Keeping Requirements

(a) To document compliance with Conditions D.2.5, D.2.6, D.2.7 and D.2.1~~1~~**2**, the Permittee shall maintain records in accordance with (1) through (8) below. Records maintained for (1) through (8) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO2 and NOx emission limits established in Conditions D.2.5, D.2.6, D.2.7.

(1) Calendar dates covered in the compliance determination period;

(2) Monthly fuel usages;

(3) Average heating value of the fuels;

(4) Average sulfur dioxide (SO2) emission rate for each fuel oil type combusted per month (pounds SO2 per million Btu)

(5) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(6) Fuel supplier certifications;

(7) The name of the fuel supplier; and

(8) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document compliance with condition D.2.1~~2~~**3**, the Permittee shall maintain records of visible emission notations of the mixing and drying operation stack exhaust, and conveyors, storage piles, and unpaved roads, once per shift.

(c) To document compliance with Condition D.2.1~~3~~**4**, the Permittee shall maintain the following:

Weekly records of the following operational parameters during normal operation when venting to the atmosphere:

(1) Inlet and outlet differential static pressure; and

(2) Cleaning cycle: frequency and differential pressure.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name: J. H. Rudolph & Company, Inc.
Source Location: 3300 S. Green River Road, Evansville, IN 47715
County: Vanderburgh
SIC Code: 2951
Operation Permit No.: F163-14132-03408
Permit Reviewer: NH/EVP

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from J.H. Rudolph & Company, Inc. relating to the operation of a hot drum-mix asphalt plant. J.H. Rudolph & Company, Inc. was issued FESOP 163-5591-03408 on December 9, 1996.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) six hundred fifty (650) tons per hour aggregate dryer, with a burner capacity of 116 million British thermal units per hour, exhausting through a baghouse at stack SV1. This dryer is fired by natural gas, including butane, #2 diesel and #4 waste oil as backup fuel;

(b) One (1) hot oil heater, fired by natural gas and rated at 2.10 million British thermal units per hour, and exhausting to stack SV2;

(c) One (1) baghouse with a total filter area of 13,149 ft2;

(d) One (1) 20,000 gallon liquid storage tank (ID # 12A) for PG 64-34;

(e) One (1) 30,000 gallon liquid asphalt storage tank (ID # 12B) for AC-10;

(f) One (1) 30,000 gallon liquid asphalt storage tank (ID # 12C) for AC-20; and

(g) Two (2) 18,000 gallon tanks (ID # 16) for #2 diesel storage.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Unit and Pollution Control Equipment

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-8-4(11):

(a) An alternate drying process, used to dry magnetite, with a maximum capacity of 50,000 tons per year.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with a heat input equal to or less than 10 million British thermal units per hour;

(b) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than 6 million British thermal units per hour;

(c) Replacement of repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment;

(d) A laboratory as defined in 326 IAC 2-7-1(20)(C); and

(e) Paved and unpaved roadways.

Existing Approvals

(a) FESOP 163-5591-03408, issued on December 9, 1996;

(b) Minor Permit Revision 163-8060-03408, issued on July 28, 1997; and

(c) Significant Permit Revision 163-8426-03408, issued on April 17, 1998.

All conditions from previous approvals were incorporated into this FESOP except the following:

FESOP 163-5591-03408, issued on December 9, 1996:

D.1.2 Particulate Matter
State: That pursuant to 326 IAC 6-3-2, particulate matter from the process emissions shall not exceed 38.63 pounds per hour (lbs/hr).

Federal: That pursuant to the New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I), particulate matter emissions from the asphalt plant shall not exceed 0.040 grains per dry standard cubic foot (gr/dscf) and that visible emissions from the plant shall not exceed 20 percent opacity. Compliance with these limits will satisfy 326 IAC 5-1 and 326 IAC 6-3-2.

Reason Not Incorporated: Condition D.1.2 retains the Federal limitation, but deletes the State limitation since the aggregate mixing and drying operations are not subject to the requirements of 326 IAC 6-3-2. This rule does not apply if the limitation is not consistent with applicable limitations in 326 IAC 6-1 or 326 IAC 12. Although the requirements of 326 IAC 6-1 are not applicable to this stationary source since it is not located in a specifically listed county, 326 IAC 12 (i.e., Subpart I) does apply. Since the PM limit established by Subpart I is less than the PM limit that would be established by 326 IAC 6-3-2 (see Appendix A, page 12 of 15), the limit pursuant to 326 IAC 6-3-2 does not apply.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on March 12, 2001. Additional information was received on October 18, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 15).

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	80,010.33
PM-10	18,621.60
SO_2	4,264.89
VOC	21.36
CO	43.45
NO_x	114.43

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Unrestricted Potential Emissions (tons/yr)
Acetaldehyde	2.448
Acrolein	0.049
Antimony	0.023
Arsenic	0.058
Benzene	0.772
Beryllium	0.002
Cadmium	0.107
Chromium	0.065
Cobalt	0.061
Ethylbenzene	0.716
Formaldehyde	4.520
Lead	0.099
Manganese	0.038
Mercury	0.016
Nickel	1.184
Quinone	0.038
Selenium	0.019
Toluene	0.301
Total Polycyclic Organic Matter	1.413
Xylene	1.094
TOTAL	13.023

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM10, SO_2 and NO_x are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Potential to Emit After Issuance

The source, issued a FESOP on December 9, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit After Issuance (tons/year)							
Process/emission unit	PM	PM-10	SO_2	VOC	CO	NO_X	Single HAP	HAPs
Magnetite drying	57.68*	57.68*	--	--	--	--	--	--
Aggregate dryer & burner	40.14	9.33	98.99	14.50	43.36	98.08	2.448	11.353
Cold Mix VOC Storage	--	--	--	84.60	--	--	--	--
Insignificant Activities**	90.92	27.1	0.0055	0.05	0.77	0.92	--	--
Total PTE After Issuance	188.74	94.11	99.00	99.15	44.13	99.00	< 10	< 25

* Limited PM/PM10 PTE levels are based on 326 IAC 6-3-2 allowables.
** Insignificant activities include conveying/handling, unpaved roads, storage and hot oil heater.
Note: Limited PM/PM10 PTE levels have been revised to reflect the permit limited PTE's rather than the controlled potential emissions.

County Attainment Status

The source is located in Vanderburgh County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	maintenance
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Vanderburgh County has been designated as maintenance for ozone.

Federal Rule Applicability

(a) This source is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.90, Subpart I) because it meets the definition of a hot mix asphalt facility pursuant to the rule and it was constructed after June 11, 1973. This rule limits particulate matter emissions to 0.04 grains per dry standard cubic foot (gr/dscf) and also limits visible emissions to 20% opacity. This is equivalent to a particulate matter emission rate of 8.53 pounds per hour. The source will comply with this rule by using a baghouse to limit particulate matter emissions to 0.04 gr/dscf (see Appendix A, page 13 of 15, for detailed calculations).

(b) The asphalt plant is not subject to the New Source Performance Standard 326 IAC 12 (40CFR 60.670 through 60.676, Subpart OOO) "Standards of Performance for Nonmetallic Mineral Processing Plants" for recycled asphalt pavement (RAP) usage since the RAP is received onsite ready-to-use, and there is no crushing or grinding of the RAP prior to loading into the first storage silo/bin.

(c) The two (2) 18,000 gallon #2 diesel storage tanks (ID # 16) are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels". The storage tanks each have capacities of greater than 40 cubic meter (m^3) (10,567 gallons) and less than 75 m^3 (19,813 gallons), therefore, pursuant to 40 CFR 60.110b(b), these tanks are exempt from all other provisions of this Subpart except 60.116b, which requires that permanent records be maintained showing dimensions and an analysis of the capacities of each tank.

(d) Storage Tanks (ID # 12A, 12B and 12C) are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels". The storage tanks each have capacities of greater than 75 m^3 (19,813 gallons) but less than 151 m^3 (39,890 gallons) and maximum true vapor pressures of less than 15.0 kPa. Therefore, pursuant to 40 CFR 60.110b(c), these tanks are exempt from all other provisions of this Subpart except 60.116b, which requires that permanent records be maintained showing dimensions and an analysis of the capacities of each tank and showing the true vapor pressure of the stored VOC, to be less than 15.0 kPa.

(e) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 61) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

Pursuant to 326 IAC 2-2 and 40 CFR 52.21 (PSD), this source, with the modification of the hot oil heater (permitted under SMF 163-8426) performed in 1998, after the 326 IAC 2-2 August 7, 1980 rule applicability date, is still not considered a major source because it is not one of the 28 listed source categories and shall continue to be limited as follows. PM-10 emissions from the aggregate mixing and drying operation shall be limited to 0.01 pounds of PM-10 emitted per ton of asphalt produced, equivalent to 3.26 pounds per hour. PM-10 shall be limited as described under the *FESOP* section below. These limits are required to limit the source-wide potential to emit of PM and PM-10 to less than 250 and 100 tons per twelve (12) consecutive month period, respectively, such that the requirements of 326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration, PSD) are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC and it is located in Vanderburgh County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 2-8 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule, the following limits shall apply:

(a) The source shall limit input to the aggregate dryer burner of No. 2 distillate fuel oil (not to exceed 0.5% sulfur content) plus No. 2 distillate fuel equivalents to 2,574,512 gallons per 12 consecutive month period. For the purposes of calculating equivalent No. 2 distillate fuel oil consumption from back-up fuels, based on SO_2 emissions, the following conversion factors shall be utilized (see Appendix A: Emission Calculations, page 9 and 10 of 15 for details on equivalency derivations):

1) 1 MMCF of natural gas burned = 7.678E-3 kgal of No. 2 fuel oil.

2) 1 kgal of liquified petroleum gas burned = 0.00 kgal of no. 2 fuel oil.

(b) Sulfur content of No. 4 waste oil shall not exceed 0.5% by weight.

(c) The usage of natural gas plus equivalent natural gas fuel usage from back-up fuels, shall be limited to 1030 million cubic feet (MMCF) per twelve (12) consecutive month period. For the purposes of calculating equivalent natural gas consumption from back-up fuels, based on NOx the following conversion factors shall be utilized (see Appendix A: Emission Calculations, page 9 and 10 of 15 for details on equivalency derivations):

1) 1 kgal of # 2 fuel oil = 0.4047 MMCF of natural gas.

2) 1 kgal of liquified petroleum gas burned = 0.1105 MMCF of natural gas.

(d) Sulfur content of No. 4 waste oil shall not exceed 0.5% by weight.

(e) PM-10 emissions from the aggregate mixing and drying operation shall be limited to 0.01 pounds of PM-10 emitted per ton of asphalt produced, equivalent to 3.26 pounds per hour, including both filterable and condensible fractions. The source will comply with the PM-10 emission limit by utilizing a baghouse for controlling PM-10 emissions from the aggregate dryer to less than 3.26 pounds per hour.

(f) PM-10 emissions from the magnetite drying shall be limited to 2.3 pounds per ton. The source will comply with the PM-10 emission limit by utilizing a baghouse for controlling PM-10 emissions.

326 IAC 5-1 (Visible Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations)

This source is subject to 326 IAC 6-5, for fugitive particulate matter emissions. Pursuant to the rule, fugitive particulate matter emissions shall be controlled according to the dust control plan submitted on March 21, 1996. The source shall continue to comply with all the dust abatement measures of the dust control plan which consists of the following:

(a) Fugitive particulate matter emissions from plant roadways, parking lots and yards shall be controlled by one of the following methods:

(1) Application of water and/or water-dust control material solutions.

(2) Sweeping between watering.

(3) Limiting vehicular speed to 10 miles per hour.

(b) Fugitive particulate matter emissions from conveying/handling operations shall be controlled by minimizing all drop distances.

(c) Fugitive particulate matter emissions from storage piles shall be controlled by one of the following methods:

(1) Minimizing drop distances.

(2) Maintaining moisture content of materials above 1.5%.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

The aggregate mixing and drying operation is not subject to the requirements of 326 IAC 6-3-2. This rule does not apply if the limitation established in the rule is not consistent with applicable limitations in 326 IAC 12, 40 CFR 60, Subpart I. Since the applicable PM limits established by 326 IAC 12, 40 CFR 60, Subpart I, are less than the PM limits that would be established by 326 IAC 6-3-2, the more stringent limits apply and the limits pursuant to 326 IAC 6-3-2 do not apply (see TSD Appendix A pages 12 of 15, for details).

326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)

The aggregate drum mix dryer is subject to 326 IAC 7-1.1 because it has potential SO_2 emissions of greater than 25 tons per year (limited potential emissions are 98.99 tons per year). Pursuant to this rule, sulfur dioxide emissions from the dryer burner shall be limited to 0.5 pounds per MMBtu for distillate oil combustion. This is equivalent to the following maximum allowable sulfur contents of the following fuels: No. 2 distillate fuel oil (0.5%) and re-refined waste oil (1.5%), (see Appendix A: Emission Calculations, page 12 of 15). All fuels used by the drum dryer are in compliance with the aforementioned sulfur content limits, therefore the drum mix dryer is in compliance with this rule.

326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)

Pursuant to this rule, the source shall submit reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate (pounds SO_2 per MMBtu), to the OAQ upon request.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

Pursuant to 326 IAC 8-4-1 (Applicability) and 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities), all petroleum liquid storage vessels with capacities greater than one hundred fifty thousand (150,000) liters (39,000 gallons) containing VOC whose true vapor pressure is greater than 10.5 kPa (1.52 psi) shall comply with the requirements for external fixed and floating roof tanks and the specified record keeping and reporting requirements. The storage tanks # 12A (20,000 gallons), # 12B (30,000 gallons), # 12C (30,000 gallons) and # 16 (18,000 gallons, each) are not subject to IAC 8-4-3 because their tanks have capacities less than the rule applicability threshold capacity of 39,000 gallons.

326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving)

The source is not subject to the requirements of 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), because the source is not planning to produce any cutback or emulsified asphalt.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties)

The requirements of this rule apply to stationary sources located in Lake, Porter, Clark and Floyd Counties that emit or have the potential to emit VOCs at levels equal to or greater than 25 tons per year in Lake and Porter Counties; 100 tons per year in Clark and Floyd Counties; and to any coating facility that emits or has the potential to emit 10 tons per year or greater in Lake, Porter, Clark or Floyd County. This source is located in Vanderburgh County. Therefore, this rule is not applicable to this source.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1, on and after October 1, 1995 stationary vessels used to store volatile organic liquids (VOL) must comply with the requirement of the rule if located in Clark, Floyd, Lake or Porter Counties. Stationary vessels with capacities less than 39,000 gallons are only subject to the reporting and record keeping requirements of the rule. Stationary storage vessels subject to any provision of 40 CFR Part 60.110b, New Source Performance Standard for Volatile Organic Liquid Storage, are exempt from this rule. The storage tanks (ID # 12A, 12B, 12C and 16) are not subject to IAC 8-9 because they are stationary vessels that are not located in a specified county.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

All compliance requirements from previous approvals were incorporated into this FESOP.

1. The mixing and drying operation has applicable compliance monitoring conditions as specified below:

   (a) Visible emissions notations of the drum-mix aggregate dryer/burner baghouse stack exhaust, and the conveyors, transfer points, aggregate storage piles, and unpaved roads, shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee will record whether emissions are normal or abnormal.

   (b) The Permittee shall record the total static pressure drop across the baghouse controlling the drum-mix aggregate dryer, at least once per shift when the respective aggregate dryer is in operation and venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across each baghouse shall be maintained within the range of 2.0 to 4.0 inches of water or a range established during the latest stack test.

   (c) An inspection shall be performed each calender quarter of all bags controlling the drum-mix aggregate mixing and drying operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

   These monitoring conditions are necessary because the baghouses for the aggregate mixing and drying process must operate properly to ensure compliance with 326 IAC 12, 40 CFR 60.90, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities) and 326 IAC 2-8 (FESOP).

Conclusion

The operation of this asphalt plant shall be subject to the conditions of the attached proposed **FESOP No.: F163-14132-03408.**

Appendix A: Emission Calculations	Operation Permit No.-	F163-14132	Plant I D	163-03408

Company Name:	J. H. Rudolph & Company, Inc.
Plant Location:	3300 S. Green River Road, Evansville, IN 47715
County:	Vanderburgh
Permit Reviewer:	NH/EVP

**** hot oil heater****

The following calculations determine the amount of emissions created by natural gas combustion, from hot oil heating, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, and 1.4-3.

Criteria Pollutant: 2.1 MMBtu/hr * 8,760 hr/yr / 1000 Btu/cf * 2,000 lb/ton * Ef (lb/MMcf) = (ton/yr)

P M:	1.9	lb/MMcf =	**0.02 ton/yr**
P M-10:	7.6	lb/MMcf =	**0.07 ton/yr**
S O 2:	0.6	lb/MMcf =	**5.5E-03 ton/yr**
N O x:	100.0	lb/MMcf =	**0.92 ton/yr**
V O C:	5.5	lb/MMcf =	**0.05 ton/yr**
C O:	84.0	lb/MMcf =	**0.77 ton/yr**

**** aggregate dryer burner****

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer burner, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, and 1.4-3.

Criteria Pollutant: 116 MMBtu/hr * 8,760 hr/yr / 1000 Btu/cf * 2,000 lb/ton * Ef (lb/MMcf) = (ton/yr)

P M:	1.9	lb/MMcf =	**0.97 ton/yr**
P M-10:	7.6	lb/MMcf =	**3.86 ton/yr**
S O 2:	0.6	lb/MMcf =	**0.30 ton/yr**
N O x:	190.0	lb/MMcf =	**96.54 ton/yr**
V O C:	5.5	lb/MMcf =	**2.79 ton/yr**
C O:	84.0	lb/MMcf =	**42.68 ton/yr**

The following calculations determine the amount of emissions created by the combustion of liquified petroleum gas @ 8.000E-07 % sulfur, from the aggregate dryer, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.5 - Liquified Petroleum Gas Combustion, Table 1.5-1.

Criteria Pollutant: 116 MMBtu/hr * 8,760 hr/yr / 94,000 Btu/gal * 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	0.6	lb/1000 gal =	**3.24 ton/yr**
P M-10:	0.6	lb/1000 gal =	**3.24 ton/yr**
S O 2:	7.2E-08	lb/1000 gal =	**3.9E-07 ton/yr**
N O x:	21.0	lb/1000 gal =	**113.51 ton/yr**
V O C:	0.60	lb/1000 gal =	**3.24 ton/yr**
C O:	3.6	lb/1000 gal =	**19.46 ton/yr**

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ 0.5 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-2, 1.3-4, and 1.3-7.

Criteria Pollutant: 116 MMBtu/hr * 8,760 hr/yr / 140,000 Btu/gal * 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	2.0	lb/1000 gal =	**7.26 ton/yr**
P M-10:	1.0	lb/1000 gal =	**3.63 ton/yr**
S O 2:	76.9	lb/1000 gal =	**279.08 ton/yr**
N O x:	24.0	lb/1000 gal =	**87.10 ton/yr**
V O C:	0.20	lb/1000 gal =	**0.73 ton/yr**
C O:	5.0	lb/1000 gal =	**18.15 ton/yr**

**** aggregate dryer burner****

The following calculations determine the amount of emissions created by the combustion of waste oil (re-refined)
@ 0.5 % sulfur, 0.33 % ash, based on 8760 hours of use and
US EPA's AP-42, 5th Edition, Section 1.11 - Waste Oil Combustion, Tables 1.11-1, 1.11-2, and 1.11-3.

Criteria Pollutant: 116 MMBtu/hr * 8760 hr/yr / 138,000 Btu/gal * 2000 lb/ton * Ef (lb/1000 gal) = (ton/yr)

P M:	30.5	lb/1000 gal =	**112.29 ton/yr**
P M-10:	16.83	lb/1000 gal =	**61.96 ton/yr**
S O 2:	73.5	lb/1000 gal =	**270.61 ton/yr**
N O x:	19.0	lb/1000 gal =	**69.95 ton/yr**
V O C:	1.0	lb/1000 gal =	**3.68 ton/yr**
C O:	5.0	lb/1000 gal =	**18.41 ton/yr**

The maximum potential emissions from the aggregate dryer burner due to fuel combustion are the following:

Criteria Pollutant:		**Worst Case Fuel**
P M:	**112.29 ton/yr**	Waste Oil
P M-10:	**61.96 ton/yr**	Waste Oil
S O 2:	**279.08 ton/yr**	No. 2 Fuel Oil
N O x:	**113.51 ton/yr**	Butane
V O C:	**3.68 ton/yr**	Waste Oil
C O:	**42.68 ton/yr**	Natural Gas

*** * aggregate drying: drum-mix plant * ***

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Tables 11.1-2 and 11.1-9 for a drum mix dryer which has the capability of combusting either fuel oil or natural gas:

Pollutant:	Ef	lb/ton x	650	ton/hr x	8,760 hr/yr
			2,000	lb/ton	

Criteria Pollutant:

P M:	28	lb/ton =	**79,716.00**	**ton/yr**
P M-10:	6.5	lb/ton =	**18,505.50**	**ton/yr**
VOC:	0.00619	lb/ton =	**17.62**	**ton/yr**

The VOC emission factor for aggregate drying includes HAP emissions which are assumed to be VOC.

*** * magnetite drying: drum-mix plant * ***

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Tables 11.1-2 and 11.1-9 for a drum mix dryer which has the capability of combusting either fuel oil or natural gas:

Pollutant:	Ef	lb/ton x	5.71	ton/hr x	8,760 hr/yr
			2,000	lb/ton	

Criteria Pollutant:

P M:	19.7	lb/ton =	**492.69**	**ton/yr**
P M-10:	19.7	lb/ton =	**492.69**	**ton/yr**

*** * conveying / handling * ***

The following calculations determine the amount of emissions created by material handling, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follows:

PM-10 Emissions:

E =	k*(0.0032)*(((U/5)^1.3)/((M/2)^1.4))	
=	5.23E-03	lb PM-10/ton
	1.11E-02	lb PM/ton
where k =	0.35	(particle size multiplier for <10um)
	0.74	(particle size multiplier for <30um)
U =	12	mph mean wind speed
M =	1.5	material moisture content (%)

650 ton/hr * 8,760 hrs/yr * Ef (lb/ton of material) = (ton/yr)
2,000 lb/ton

Total PM 10 Emissions:	**14.89**	**tons/yr**
Total PM Emissions:	**31.47**	**tons/yr**

*** * unpaved roads * ***

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2.2

I. Tri-axle Truck

9 trip/hr x 0.3 mile/trip x 8,760 hr/yr = 23,652 mile/yr

Ef = k*[(s/12)^a]*[(W/3)^b]/[(Mdry/0.2)^c]*[(365-p)/365)]*(S/15)
= 5.77 lb PM/mile
= 1.50 lb PM-10/mile

where k =	10	(particle size mutliplier, PM30)	(k= 2.6 for PM10)
s =	4.8	mean % silt content of unpaved plant roads	
a =	0.8	Constant for PM30/PM-10	
W =	22.5	tons, average vehicle weight	
b =	0.5	Constant for PM30	(b = 0.4 for PM10)
Mdry =	0.2	surface material moisture content, % (default 0.2 (dry conditions) when using rainfall parameter)	
c =	0.4	Constant for PM30	(c = 0.3 for PM10)
p =	125	number of days with at least 0.01 in of precipitation per year	
S =	10	mph speed limit	

5.77 lb/mi x 23,652 mi/yr / 2000 lb/ton = 68.21 tons/yr

1.50 lb/mi x 23,652 mi/yr / 2000 lb/ton = 17.73 tons/yr

II. Front End Loader

29 trip/hr x 0.112 mile/roundtrip x 8,760 hr/yr = 28,452 mile/yr

Ef = k*[(s/12)^a]*[(W/3)^b]/[(Mdry/0.2)^c]*[(365-p)/365)]*(S/15)
= 5.75 lb PM/mile
= 1.50 lb PM-10/mile

where k =	10	(particle size mutliplier, PM30)	(k= 2.6 for PM10)
s =	4.8	mean % silt content of unpaved plant roads	
a =	0.8	Constant for PM30/PM-10	
W =	35	tons, average vehicle weight	
b =	0.5	Constant for PM30	(b = 0.4 for PM10)
Mdry =	0.2	surface material moisture content, % (default 0.2 (dry conditions) when using rainfall parameter)	
c =	0.4	Constant for PM30	(c = 0.3 for PM10)
p =	125	number of days with at least 0.01 in of precipitation per year	
S =	8	mph speed limit	

5.75 lb/mi x 28,452 mi/yr / 2000 lb/ton = 81.87 tons/yr

1.50 lb/mi x 28,452 mi/yr / 2000 lb/ton = 21.29 tons/yr

Total PM Emissions From Unpaved Roads = 150.08 tons/yr
Total PM-10 Emissions From Unpaved Roads = 39.02 tons/yr

*** * storage * ***

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

Material	Silt Content (wt %)	Pile Size (acres)	Storage Capacity (tons)	P M Emissions tons/yr	P M-10 Emissions tons/yr
Sand	1.1	0.490	15,000	0.11	0.04
Stone	1.1	1.160	30,000	0.27	0.09
RAP	0.8	0.470	15,000	0.08	0.03
Total				**0.46**	**0.16**

Sample Calculation:

Ef = 1.7*(s/1.5)*(365-p)/235*(f/15)
= 1.27 lb/acre/day
where s = 1.1 % silt
p = 125 days of rain greater than or equal to 0.01 inches
f = 15 % of wind greater than or equal to 12 mph

Ep (storage) = Ef * (Pile Size in acres) * (365 day/yr) / (2,000 lb/ton)
Pile Size = 0.49 acres

PM = 0.11 tons/yr **P M-10:** 35% of PM = **0.04 tons/yr**

*** *cold mix VOC storage emissions * ***

The following calculations determine the amount of VOC emissions created by the application of emulsified asphalt with 1.0% fuel oil in emulsified asphalt mix, based on 8,760 hours of operation.

VOC Emission Factor = 0.07 weight percent flash-off of cold mix
Potential Throughput (tons/yr) = 5,694,000 tons/yr stockpile mix

Potential VOC Emissions (tons/yr) = Potential Throughput (tons/yr) * VOC Emission Factor (wt% flash-off)
Potential VOC Emissions = 3,985.80 tons/yr

* Weight percent flash-off is based on a 7.0 weight percent of emulsified asphalt mix in stockpile mix.

*** * summary of source emissions before controls * ***

Criteria Pollutants:

P M: 80,010.33 ton/yr
P M-10: 18,621.60 ton/yr
S O 2: 4,264.89 ton/yr
N O x: 114.43 ton/yr
V O C: 21.36 ton/yr (VOCs include HAPs from aggregate drying operation)
C O: 43.45 ton/yr

*** * source emissions after controls * ***

In order to qualify for the FESOP program, this source must limit SO2 and NOx emissions to 99.0 tons per year. Consequently, SO2 and NOx emissions from the aggregate dryer must be limited to 98.99 tons per year (99.0 ton/yr - 0.0055 ton/yr from the hot oil heater), and 98.08 tons per year (99.0 tpy - 0.92 tpy from the hot oil heater), respectively.

* Emissions of PM and PM-10 from aggregate drying operations are controlled with a 99.924 % control efficiency.

The following calculations determine the amount of emissions created by natural gas combustion based on a fuel usage limitation of 1.03E+09 cf

Natural Gas: 1,032.421 MMcf/yr * Ef (lb/MMcf) = (ton/yr)
2,000 lb/ton

P M:	1.9 lb/MMcf =	**7.46E-04 ton/yr ***
P M-10:	7.6 lb/MMcf =	**2.98E-03 ton/yr ***
S O 2:	0.6 lb/MMcf =	**0.31 ton/yr**
N O x:	190.0 lb/MMcf =	**98.08 ton/yr**
V O C:	5.5 lb/MMcf =	**2.84 ton/yr**
C O:	84.0 lb/MMcf =	**43.36 ton/yr**

The following calculations determine the amount of emissions created by liquified petroleum gas @ 8.00000E-07 % sulfur based on the maximum unit capacity of 9,340,952 gal/yr:

Liquified Petroleum Gas 9,340,952 gal/yr * Ef (lb/1,000 gal) = (ton/yr)
2,000 lb/ton

P M:	0.6 lb/1000 gal =	**2.13E-03 ton/yr ***
P M-10:	0.6 lb/1000 gal =	**2.13E-03 ton/yr ***
S O 2:	7.2E-08 lb/1000 gal =	**3.36E-07 ton/yr**
N O x:	21.0 lb/1000 gal =	**98.08 ton/yr**
V O C:	0.6 lb/1000 gal =	**2.80 ton/yr**
C O:	3.6 lb/1000 gal =	**16.81 ton/yr**

The following calculations determine the amount of emissions created by No. 2 distillate fuel oil @ 0.5 % sulfur based on a fuel usage limitation of 2,574,512 gal/yr:

No. 2 Distillate Oil: 2,574,512 gal/yr * Ef (lb/1,000 gal) = (ton/yr)
2,000 lb/ton

P M:	2.0 lb/1000 gal =	**1.96E-03 ton/yr ***
P M-10:	1.0 lb/1000 gal =	**9.79E-04 ton/yr ***
S O 2:	76.9 lb/1000 gal =	**98.99 ton/yr**
N O x:	24.0 lb/1000 gal =	**30.89 ton/yr**
V O C:	0.2 lb/1000 gal =	**0.26 ton/yr**
C O:	5.0 lb/1000 gal =	**6.44 ton/yr**

*** * source emissions after controls * ***

The following calculations determine the amount of emissions created by waste oil @ 0.5 % sulfur based on a fuel usage limitation of 2,693,605 gal/yr:

Waste Oil: 2,693,605 gal/yr / 2000 lb/ton * Ef (lb/1000 gal) = (ton/yr)

P M:	30.5	lb/1000 gal =	**0.03 ton/yr ***
P M-10:	16.8	lb/1000 gal =	**0.02 ton/yr ***
S O 2:	73.5	lb/1000 gal =	**98.99 ton/yr**
N O x:	19.0	lb/1000 gal =	**25.59 ton/yr**
V O C:	1.0	lb/1000 gal =	**1.35 ton/yr**
C O:	5.0	lb/1000 gal =	**6.73 ton/yr**

Criteria Pollutant:		**Worst Case Fuel**
P M:	**0.03 ton/yr**	Waste Oil
P M-10:	**0.02 ton/yr**	Waste Oil
S O 2:	**98.99 ton/yr**	# 2 Fuel Oil
N O x:	**98.08 ton/yr**	Natural Gas
V O C:	**2.84 ton/yr**	Natural Gas
C O:	**43.36 ton/yr**	Natural Gas

*** * source emissions after controls * ***

Fuel Usage Limitations

Primary Fuel: Natural Gas

98.08	tons NOx/year limited	*	1016.16	MMCF	=	1032.421	MMCF
96.54	tons NOx/year potential			year potential			year limited

Backup Fuel: #2 distillate oil

98.99	tons SO2/year limited	*	7,258	Kgals	=	2574.512	Kgals
279.08	tons SO2/year potential			year potential			year limited

Fuel equivalence limit for natural gas based on NOx emissions from #2 distillate fuel oil:

96.54	n.g. potential emis. (ton/yr)	/	279.08	#2 F.O. potential emissions (ton/yr)
1182.6	n.g. potential usage (MMCF/yr)		8447.14	#2 F.O. potential usage (kgal/yr)

= 2.471E+00 No. 2 distillate fuel oil / MMCF n.g. burned

Fuel equivalence limit for natural gas based on SO2 emissions from # 2 distillate oil:

0.3	n.g. potential emis. (ton/yr)	/	279.08	#2 F.O. potential emissions (ton/yr)
1016.16	n.g. potential usage (MMCF/yr)		7258.29	#2 F.O. potential usage (kgal/yr)

= 7.678E-03 No. 2 distillate fuel oil / MMCF n.g. burned

Backup Fuel: LPG

Fuel equivalence limit for liquified petroleum gas based on NOx emissions from natural gas:

113.5072	LPG potential emis. (ton/yr)	/	96.54	n.g potential emissions (ton/yr)
10810.21	LPG potential usage (kgal/yr)		1016.16	n.g potential usage (MMCF/yr)

= 1.105E-01 MMCF n.g. / Kgal LPG burned

Fuel equivalence limit for liquified petroleum gas based on SO2 emissions from # 2 distillate oil:

0.0000	LPG potential emis. (ton/yr)	/	279.08	#2 F.O. potential emissions (ton/yr)
10810.21	LPG potential usage (kgal/yr)		7258.29	#2 F.O. potential usage (kgal/yr)

= 0.000E+00 No. 2 distillate fuel oil / Kgal LPG burned

Backup Fuel: waste oil

Fuel equivalence limit for waste oil based on SO2 emissions from # 2 distillate fuel oil:

270.61	waste oil potential emis. (ton/yr)	/	279.08	#2 F.O. potential emissions (ton/yr)
7363.48	waste oil potential usage (kgal/yr)		7258.29	#2 F.O. potential usage (kgal/yr)

= 0.9558 No. 2 distillate fuel oil / Kgal waste oil burned

Fuel equivalence limit for waste oil based on NOx emissions from natural gas:

69.95	waste oil potential emis. (ton/yr)	/	96.54	n.g. potential emissions (ton/yr)
7363.48	waste oil potential usage (kgal/yr)		1016.16	n.g. potential usage (MMCF/yr)

= 0.1000 MMCF n.g. / Kgal waste oil burned

*** *cold mix VOC storage limitations * ***

The following calculations determine the amount of VOC emissions created by the application of liquid binder for cold mix stockpiles, based on the source's use of emulsified asphalt with solvent as the liquid binder type. Emulsified asphalt with solvent is defined with the following properties:

Maximum Weight % of VOC solvent in binder	15.0	%
Weight % of VOC solvent in binder that evaporates:	46.4	%
Volume of diluent allowed	7	% (per 326 IAC 8-5-2)

In order to qualify for the FESOP program, this source must limit VOC emissions to less than 99 tons per year. Deducting the VOC emitted from other activities, VOC solvent usage as diluent in the liquid binder used in the production of cold mix asphalt from the plant shall be limited to 84.60 tons of VOC emitted per twelve (12) consecutive month period. This is equivalent to limiting the usage of emulsified asphalt with solvent liquid binder to 182.3276 tons of VOC solvent per 12 consecutive month period, based on 46.4 percent (%) by weight of the VOC solvent in the liquid blend evaporating.

*** * source emissions after controls * ***

	aggregate drying:		nonfugitive		
P M:	79,716 ton/yr x		0.08%	emitted after controls =	**60.63 ton/yr**
P M-10:	18,506 ton/yr x		0.08%	emitted after controls =	**14.08 ton/yr**
	conveying & handling:		fugitive		
P M:	31.26 ton/yr x		50%	emitted after controls =	**15.63 ton/yr**
P M-10:	14.89 ton/yr x		50%	emitted after controls =	**7.44 ton/yr**
	unpaved roads:		fugitive		
P M:	150.08 ton/yr x		50%	emitted after controls =	**75.04 ton/yr**
P M-10:	39.02 ton/yr x		50%	emitted after controls =	**19.51 ton/yr**
	storage piles:		fugitive		
P M:	0.46 ton/yr x		50%	emitted after controls =	**0.23 ton/yr**
P M-10:	0.16 ton/yr x		50%	emitted after controls =	**0.08 ton/yr**
	cold mix VOC storage*:		fugitive		
VOC:	84.60 ton/yr x		100%	emitted after controls =	**84.60 ton/yr**

*** * summary of source emissions after controls * ***

Criteria Pollutant:	**Non-Fugitive**	**Fugitive**	**Total**
PM:	**60.68 ton/yr**	**90.90 ton/yr**	**151.58 ton/yr**
PM-10:	**14.16 ton/yr**	**27.03 ton/yr**	**41.20 ton/yr**
S O 2:	**99.00 ton/yr**	**0.00 ton/yr**	**99.00 ton/yr**
N O x:	**99.00 ton/yr**	**0.00 ton/yr**	**99.00 ton/yr**
V O C:	**20.51 ton/yr**	**84.60 ton/yr**	**105.11 ton/yr**
C O:	**44.13 ton/yr**	**0.00 ton/yr**	**44.13 ton/yr**

*** * miscellaneous * ***

326 IAC 7 Compliance Calculations:

The following calculations determine the maximum sulfur content of distillate fuel oil (No. 2 Oil) allowable by 326 IAC 7:

0.5 lb/MMBtu x 140,000 Btu/gal= 70 lb/1000gal

70 lb/1000gal / 142 lb/1000 gal = 0.5 %

Sulfur content must be less than or equal to 0.5% to comply with 326 IAC 7.

The following calculations determine the maximum sulfur content of residual oil (Waste Oil) allowable by 326 IAC 7:

1.6 lb/MMBtu x 138,000 Btu/gal= 220.8 lb/1000gal

220.8 lb/1000gal / 150 lb/1000 gal = 1.5 %

Sulfur content must be less than or equal to 1.5% to comply with 326 IAC 7.

326 IAC 6-3-2 Compliance Calculations:

The following calculations determine compliance with 326 IAC 6-3-2 for process weight rates in excess of 30 tons per hour:

limit = 55 * (650 ^ 0.11) - 40 = 72.15 lb/hr or
316.00 ton/yr

PM emissions from the aggregrate dryer are controlled to 40.11 tons per year < 294.17 tons per year (will comply)

Since this emission limit exceeds both the Subpart I allowable PM emission limits (see next page), the requirements of 326 IAC 6-3-2 shall not apply, pursuant to 326 IAC 6-3-1(b). The source shall comply with the PM limit pursuant to 40 CFR 60, Subpart I, as the more stringent limit. Compliance with Subpart I shall also limit source wide PM to less than 250 tons per year and therefore, the requirements of 326 IAC 2-2 (PSD) shall not apply.

*** * miscellaneous * ***

PM-10 Emission Limit:

(99.0 tons PM10/yr - 27.05 tons PM10/yr for non-dryer emission	14.27	tons / year	
=	3.26	lb/hr, based on 8,760 hr/yr	
=	0.01	lb PM10/ton asphalt, based on 650 tons asphalt /hr	

PM10 emissions from the aggregrate dryer are controlled to 14.08 tons per year < 14.27 tons per year (will comply)

40 CFR Part 60.90, Subpart I (Standards of Performance for Hot Mix Asphalt Plants) Compliance Calculations:

The following calculations determine compliance with NSPS, which limits stack emissions from asphalt plants to 0.04 gr/dscf:

60.63	ton/yr *	2000	lb/ton *	7000	gr/lb =	0.06	gr/dscf	(will not compl
525,600	min/yr *	24,877	dscf/min					

Allowable particulate emissions under NSPS equate to 37.36 tons per year. 8.53 lbs/hr

Note:

SCFM = 34,865 acfm * (460 + 68) / (460 + 280)
= 24,877 scfm

Hazardous Air Pollutants (HAPs)

**** aggregate dryer burner****

The following calculations determine the amount of HAP emissions created by the combustion of residual oil before & after controls, from the aggregate dryer burner, based on 8760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-11.

Hazardous Air Pollutants (HAPs): 116 MMBtu/hr * 8760 hr/yr / 2,000 lb/ton * Ef (lb/10^12 Btu) = (ton/yr)

			Potential To Emit		Limited Emissions	
Antimony:	46	lb/10^12 Btu =	2.34E-02	ton/yr	1.78E-05	ton/yr
Arsenic:	114	lb/10^12 Btu =	5.79E-02	ton/yr	4.41E-05	ton/yr
Beryllium:	4.2	lb/10^12 Btu =	2.13E-03	ton/yr	1.62E-06	ton/yr
Cadmium:	211	lb/10^12 Btu =	1.07E-01	ton/yr	8.15E-05	ton/yr
Chromium:	128	lb/10^12 Btu =	6.50E-02	ton/yr	4.95E-05	ton/yr
Cobalt:	121	lb/10^12 Btu =	6.15E-02	ton/yr	4.68E-05	ton/yr
Lead:	194	lb/10^12 Btu =	9.86E-02	ton/yr	7.50E-05	ton/yr
Manganese:	74	lb/10^12 Btu =	3.76E-02	ton/yr	2.86E-05	ton/yr
Mercury:	32	lb/10^12 Btu =	1.63E-02	ton/yr	1.24E-05	ton/yr
Nickel:	2330	lb/10^12 Btu =	1.18E+00	ton/yr	9.00E-04	ton/yr
Selenium:	38	lb/10^12 Btu =	1.93E-02	ton/yr	1.47E-05	ton/yr
		Total HAPs =	1.63E+00	ton/yr	1.24E-03	ton/yr

*** * aggregate drying: drum-mix plant * ***

The following calculations determine the amount of HAP emissions created by aggregate drying before & after controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-9 for a drum mix dryer which can be fired with either fuel oil or natural gas. The HAP emission factors represent the worst case emissions (natural gas combustion).

Pollutant:	Ef	lb/ton x	650	ton/hr x	8760	hr/yr
			2000	lb/ton		

Hazardous Air Pollutants (HAPs):			Potential To Emit	Limited Emissions
Acetaldehyde:	1.30E-03	lb/ton =	3.70 ton/yr	3.70 ton/yr
Acrolein:	2.60E-05	lb/ton =	0.07 ton/yr	0.07 ton/yr
***Benzene:**	4.10E-04	lb/ton =	1.17 ton/yr	1.17 ton/yr
Ethylbenzene:	3.80E-04	lb/ton =	1.08 ton/yr	1.08 ton/yr
***Formaldehyde:**	2.40E-03	lb/ton =	6.83 ton/yr	6.83 ton/yr
Methyl Ethyl Ketone:	2.00E-05	lb/ton =	0.06 ton/yr	0.06 ton/yr
Quinone:	1.60E-04	lb/ton =	0.46 ton/yr	0.46 ton/yr
Toluene:	7.50E-04	lb/ton =	2.14 ton/yr	2.14 ton/yr
****Total Polycyclic Organic Matter (POM):**	5.810E-04	lb/ton =	1.65 ton/yr	1.65 ton/yr
***Xylene:**	1.60E-04	lb/ton =	0.46 ton/yr	0.46 ton/yr
		Total HAPs =	15.50 ton/yr	15.50 ton/yr

* The emission factor for formaldehyde from fuel oil firing (0.0032 lb/ton) exceeds the formaldehyde emission factor from natural gas firing (0.00086 lb/ton). Consequently, the worst case emissions for formaldehyde are 1.75 ton/yr. However, since the VOC emissions from natural gas combustion exceed the VOC emissions from fuel oil firing, the natural gas emission factor was used to avoid overestimating total VOC emissions.

*** * summary of source HAP emissions potential to emit * ***

Hazardous Air Pollutants (HAPs):	
Acetaldehyde:	**3.701** ton/yr
Acrolein:	**0.074** ton/yr
Antimony:	**0.023** ton/yr
Arsenic:	**0.058** ton/yr
Benzene:	**1.167** ton/yr
Beryllium:	**0.002** ton/yr
Cadmium:	**0.107** ton/yr
Chromium:	**0.065** ton/yr
Cobalt:	**0.061** ton/yr
Ethylbenzene:	**1.082** ton/yr
Formaldehyde:	**6.833** ton/yr
Lead:	**0.099** ton/yr
Manganese:	**0.038** ton/yr
Mercury:	**0.016** ton/yr
Nickel:	**1.184** ton/yr
Quinone:	**0.057** ton/yr
Selenium:	**0.019** ton/yr
Toluene:	**0.456** ton/yr
Total Polycyclic Organic Matter:	**2.135** ton/yr
Xylene:	**1.654** ton/yr
Total	**18.832 ton/yr**

*** * summary of source HAP limited emissions * ***

Hazardous Air Pollutants (HAPs):

Acetaldehyde:	**3.701**	ton/yr
Acrolein:	**0.074**	ton/yr
Antimony:	**0.000**	ton/yr
Arsenic:	**0.000**	ton/yr
Benzene:	**1.167**	ton/yr
Beryllium:	**0.000**	ton/yr
Cadmium:	**0.000**	ton/yr
Chromium:	**0.000**	ton/yr
Cobalt:	**0.000**	ton/yr
Ethylbenzene:	**1.082**	ton/yr
Formaldehyde:	**6.833**	ton/yr
Lead:	**0.000**	ton/yr
Manganese:	**0.000**	ton/yr
Mercury:	**0.000**	ton/yr
Nickel:	**0.001**	ton/yr
Quinone:	**0.057**	ton/yr
Selenium:	**0.000**	ton/yr
Toluene:	**0.456**	ton/yr
Total Polycyclic Organic Matter:	**2.135**	ton/yr
Xylene:	**1.654**	ton/yr
	17.160	**ton/yr**